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ABSTRACT

Instruments, not previously reported in the literature, for observational techniques that can be used in early childhood classrooms are described. Excluded are those instruments which the Research for Better Schools, Inc., a regional laboratory, will report. Section I of this report is an introduction to observational procedures and especially to observations in selected situations. Devices and techniques used for the collection of observational data are described and discussed. Section II then describes twelve classroom observation instruments, including: Classroom Behavior Scale; Daily Ratings; Discrete Classroom Behavior Schedule; Evaluation Scale of Four- and Five-Year-Old Children; Intensity of Involvement Scale; Nursery School Behavior Record; Observer Ratings of Children; Overview Snapshot Observational Technique; Reaction of Entry of Teachers; School and Classroom Observation Categories; Teachers' Attending Behaviors; and Weekly Ratings. An extensive bibliography is also included. (LH)

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SYSTEMS FOR THE OBSERVATION OF CLASSROOM BEHAVIOR IN EARLY CHILDHOOD EDUCATION

by

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Systems for the Observation of Classroom
Behavior in Early Childhood Education

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Associate in Education

INTRODUCTION

A search through the literature to locate instruments used to systematically observe early childhood classroom behavior has been a reminder that educational researchers did not always consider the study of classroom observation systems a top priority. Few observationally based studies are reported for the late forties and fifties. The next decade began a new era in the use of observational techniques in early childhood classrooms. In addition, the early researchers (with some notable exceptions) were primarily concerned with an examination of child behavior. Researchers today are concerned with teacher behavior and with student-teacher interactional behavior.

Many recent reviews describe observational techniques that can be used in early childhood classrooms.* Thus it is the purpose of this paper to describe those instruments not reported in the collection listed above. We have also excluded in this report those instruments which the Research for Better Schools, Inc., a regional laboratory, now intends to

*See, for example, reviews by Adams (1970); Becker, Thomas, and Carnine (1969); Biddle (1967); Biddle and Elleva (1964); Boyd and deVault (1966); Coller (1971); Dawe (1947); Dopyera and Lay (1969); Gellert (1955); Gordon (1966); Gordon and Jester (in press); Hanley (1970); Hartup (1970); Hare (1962); Johnson and Bommarito (1971); Medley and Mitzel (1963); Murray (1970); Ober (1968); Sears and Dowley (1963); Simon and Boyer (1968); Soar (1970); Stake (1970); Webb, Campbell, Schwartz, and Sechrest (1966); Weick (1968); and Wright (1960).

include in a forthcoming collection.

Section I is intended to provide an introduction to observational procedures and especially to observations in selected situations. Devices and techniques used for the collection of observational data are described and discussed. Section II describes twelve classroom observation instruments not previously described elsewhere.

Section I. AN INTRODUCTION TO OBSERVATIONAL PROCEDURES

Direct Observational Procedures

A fundamental characteristic of all direct observational procedures is their emphasis upon overt behavior, including expressive or coping behaviors that can be seen, heard, or otherwise perceived by the human or mechanical recorder. Covert behaviors, or a child's or teacher's perceptions, attitudes, feelings, or intents for their interactions are not directly observable and must, therefore, be inferred from overt behaviors, or assessed by other means. The fact that direct observational techniques relate to the recorder's perception of emergent behaviors and not to his impressions of past behavior serves to distinguish such procedures from behavioral trace procedures.

Direct observational procedures may be concerned with behaviors as they occur either under naturalistic or controlled situations. Naturalistic observations are concerned mainly with viewing the child in his everyday environment; where behavior can unfold naturally and is not influenced or caused by the observer or his cohorts. Two naturalistic

observational techniques are: observations in unstructured environments and observations in selected situations. The technique known as observations in contrived situations is a controlled observation technique. In controlled observations the environment is "subtly" modified by the observer in such a way that behavior of interest to the observer may be elicited from S; Weick (1968) called this approach "tempered naturalness."

Our concern in this paper is to examine systems useful for the observation of behaviors which take place in early childhood classrooms. An analysis of techniques belonging to the observations in selected situations approach, as portrayed in Figure 1, seems to suit this purpose best.

Observations in unstructured environments are concerned with situations, in which the subject moves freely about his everyday environment (e.g., his neighborhood) unrestricted by the observer. Such behavior is usually assessed by any number of different types of "trailing" techniques, usually referred to as specimen description techniques (Wright, 1960). These techniques involve following the subject and recording, usually in a detailed sequential narration, his predominant modes of response to various situations he encounters. The specimen description technique can also be used in the classroom situation.

Observations in contrived situations refer to techniques designed to assess behaviors in specially designed situations that are intended to elicit responses of interest. Weick (1968) indicated that there are several reasons why an investigator might decide to modify a natural setting, but basically it is because he cannot afford to just wait for

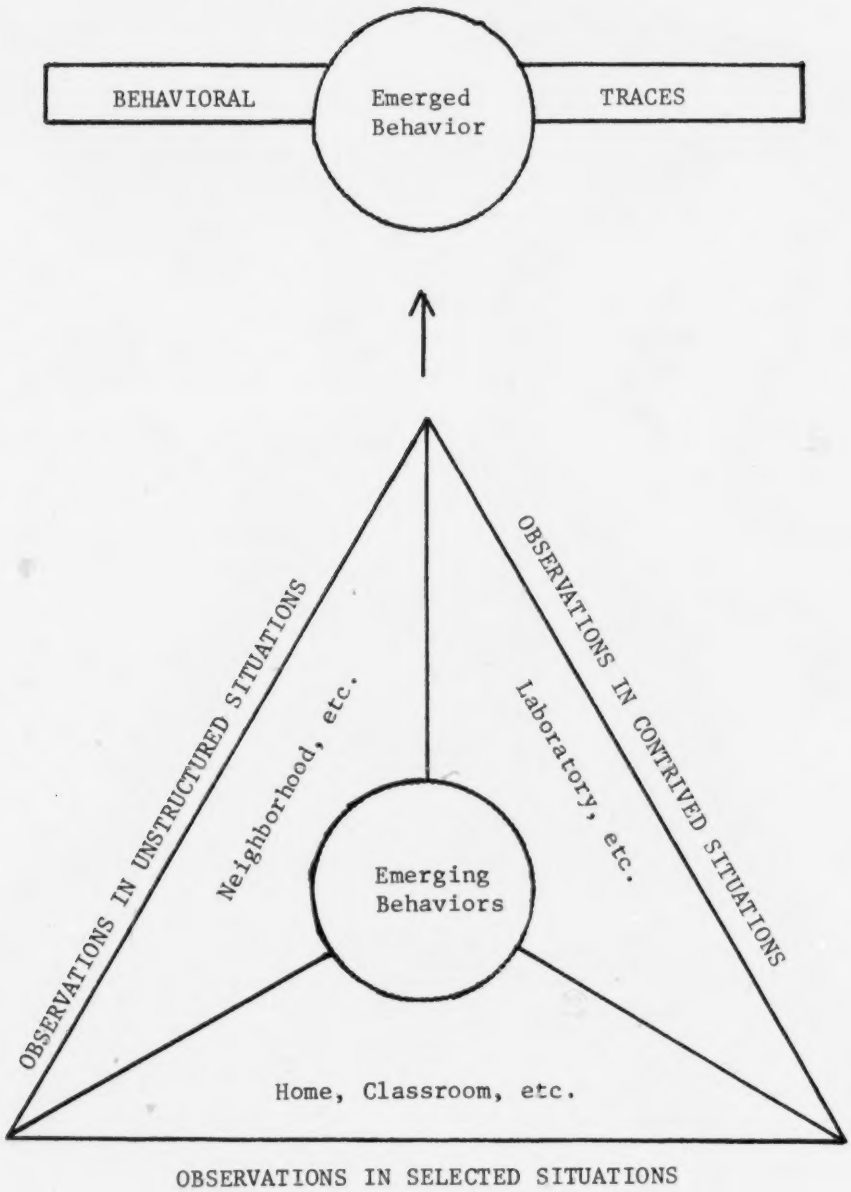

FIGURE 1. Basic Observational Procedures

something relevant to happen. Techniques used for observations in contrived situations also provide more control and the results may be generalizable to other conditions which are similar. An example of an observation in contrived situations technique is the instrument, Reaction to Entry of Teachers, developed by the staff of the National Institute of Mental Health (undated (c)) and described in the next section. In general, the true purpose of the modified situation is hidden from the subject and he is not (or should not be) aware that he is being observed.

Observations in selected situations refer to a class of techniques that are designed to assess behavior in given situations (e.g., in the classroom, on the playground, at home, etc.). These procedures are employed because many interesting behaviors occur more frequently under certain conditions than under others. And, also researchers and educators are vitally concerned with classroom behavior. Almost every type of device and technique available has been used to gather observational data in the classroom.

Collecting Observations in Selected Situations

Weick (1968) considers two processes basic to the observational process: recording and encoding. Recording means that "...a considerable portion of observational research consists of making extensive records of events which at some later time are subject to analysis" (p. 361). Encoding is "...the simplification of records through ratings, categories, or frequency counts" (p. 361). Weick's distinction,

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however, does not do justice to the observational processes which uses encoding techniques as recording procedures. Another way of looking at these processes is possible: Webb, et al (1966), for example, speak of "accretion", a process whereby materials are "deposited" and later examined by behavioral trace measures. This is an arresting distinction and is one of which we should be more aware. We may note in this respect that the initial collection or accretion of observational data employs direct observational procedures; the analysis of the already-collected data employs behavioral trace procedures. In any event, we shall use the term "accretion" to refer to any process whereby behavioral data is gathered for future analysis.

Data Accretion Devices

Classroom behaviors can be witnessed live by an observer or recorded mechanically by a technician using a video-tape recorder, for example. Behaviors observed live may be encoded on-the-scene or otherwise described to be processed later. Regardless of approach, the end result is the accretion of data that is to be analyzed statistically at some future time. There are ten basic accretion devices by which observational data may be "deposited" physically: (1) cinematic, (2) audient, (3) photographic, (4) typographic, (5) miscellaneous mechanical devices, (6) self-as-instrument, (7) diagrammatic, (8) notational, (9) marking, and (10) written. These accretion devices can be combined to form a more extensive set of devices (See Table 1).

TABLE 1. Matrix of Accretion Data Devices Currently Used for "Depositing"

Classroom Observational Data

CINEMATIC	AUDIENT	PHOTOGRAPHIC	TYPOGRAPHIC	MISCELLANEOUS MECHANICAL DEVICES	SELF-AS-INSTRUMENT	DIAGRAMMATIC	NOTATIONAL	MARKING	WRITTEN	
✓	✓							✓		CINEMATIC
	✓		✓					✓		AUDIENT
		✓							✓	PHOTOGRAPHIC
			✓							TYPOGRAPHIC
				✓						MISC. MECHANICAL DEVICES
					✓			✓	✓	SELF-AS-INSTRUMENT
						✓			✓	DIAGRAMMATIC
							✓			NOTATIONAL
								✓	✓	MARKING
									✓	WRITTEN

Cinematic procedures in the form of motion picture films have gained in popularity as an accretion device (e.g., Haggard and Isaacs, 1966; Haworth, 1956; and Openshaw and Cyphant, 1966). The cinematic/audient combination which may be in the form of a film with sound or video-tape with sound is even more popular (e.g., Brown, 1968; Kounin, Freisen, and Norton, 1966; and Soar, 1970). Miller (1969, 1970) employed a soundless video-tape method but combined it with a marking procedure (cinematic/marking) to categorize further the events as they occured.

Audient procedures of all types have been employed (e.g., Loomis and Meyer, 1959 and Ober, et al, 1968). Loomis and Meyer (1959) had two observers watch subjects and had them describe on tape everything that occurred. The observer's voice was analyzed as well as content. Sher and Horner (1967) used two tracks--one to record what the subject said and the other to keep a record of what the subject was doing. These data were later transcribed for analysis (audient→typographic). Caldwell (undated) uses the audient→marking procedure whereby a narrative description of behaviors is tape recorded and then coded. The audient→written approach was used by Schoggen (1964). He used a "Stenomask" into which he narratively described what was going on in the classroom. He obtained a degree of freedom in that he could move about and talk without disturbing anyone. He later wrote down his impressions.

Withall (1956) used time-lapse photography, a photographic data accretion device. Gump (1967) obtained a specimen description of a classroom but supplemented his data by use of photographs (photographic/written).

Chapple (1949) invented the "interaction chronograph" which was similar in many respects to a typewriter; the keys differed and were, in fact, codes for behavior. The typographic device is used often to transcribe audiently obtained observational data.

There are a number of different miscellaneous type data accretion devices. Wilensky (1965),for example, used a wristwatch to count the length of time of various periods in a nursery school. Hargreaves and Starkweather (1963) used a voice spectometer to examine emotive quality. Crawford and Nicora (1964) used a ultrasonic device to examine classroom movement.

Self-as-instrument devices refer to any procedure in which the observer himself is behaving as if he were the recording device. The observer becomes both a cinematic and audient device and tends to rely upon "memory" for recording visual and auditory events. Later the observer attempts to recall what it was that transpired. Lofland (1971) and Schwartz and Schwartz (1955) discuss the participant observer approach which involves the observer "living with" the type of persons he is concerned with describing. Combs and Soper (1963) describe the self-as-instrument device and have developed scales (which O (an observer) rates)after he has gathered his inferences about S (self-as-instrument→marking).

Coller (1970) used the diagrammatic device (which, by definition, also employs notations) to display pictorially a day-in-the-life of a classroom. Coller (1970) also used the diagrammatic/written device to describe more fully what the diagrams and the notations on it represented.

Wrightstone (1944) used a notational system to describe how students at their seats in a classroom were reacting in respect to the lesson.

Marking, of course, is an obvious encoding procedure (a diagrammatic and/or notational system may also be an encoding procedure) and may be employed as a supplementary process for many of the devices mentioned. The observational instruments developed by Medley and Smith (1969) and Wilensky (1966) are typical marking procedures. The Educational Testing Service (1966) and Prescott (1967) developed instruments which employed both marking and narrative description (marking/written).

The written devices are well known (e.g., specimen description, diary descripton, anecdotal records, etc). The work of Kounin (1970) and of Barker and Wright (1955) are good examples of this method.

Implementation of Data Accretion Devices

How to implement a chosen accretion device in the classroom is a problem for the developer of an observational instrument. Wright (1963) and Gordon and Jester (in press) have considered this issue. For example, Wright attempted to schematize six basic methods used in observational child study: diary description, specimen description, time sampling, event sampling, trait ratings, and field unit analysis. These methods may be distinguished from one another on the basis of "continuum coverages", "material coverage", "recording technique", and "analysis procedure." Gordon and Jester (in press) added to the number of basic methods by dividing the time sampling category into "time/signs," and "time/categories" and by adding "level of cognitive interaction."

Table 2 presents an alternative to these approaches. Basically, the matrix displayed in Table 2 is described by two dimensions: a set of data systems and a set of sampling units.

Fundamental Data Systems

There are three fundamental data systems: field, sign, and category. Field data system refers to that situation in which the observer is not pre-set by instruction to look for and assess specific behaviors. Instead, the observer is to respond to field forces and describe, within pre-determined limits, all that occurs. Sign data system refers to the approach during which O lists "beforehand a number of specific acts or incidents of behavior which may or may not occur during a period of observation" (Medley & Mitzel, 1963, pp. 298-299). O, however, is pre-set by the sign system to look only for certain behaviors. We distinguish between two types of sign systems: the discrete and the hierarchical. Sign/discrete systems refer to those observational schedules whose categorical boundaries do not approach the equal-appearing interval type of scale. The categories in the sign/discrete system often are orthogonal to one another and cannot be construed as belonging to the same continuum. The sign/hierarchical systems also tend to have discrete categories but a clear representation of a hierarchy or taxonomy, is present in the items. (Note that a debate still exists as to whether or not the evaluative dimension of the cognitive taxonomy (Bloom, et al 19) is actually the highest level of cognition.) Category data system refers

to the attempt to limit the observation to one general aspect of classroom behavior. The procedure, as described by Medley and Mitzel (1963), is to "construct a definite set of categories into one and only one of which every unit observed can be classified" (p. 298). The matrix shown in Table 2 indicates that there are three types of category systems: discrete, hierarchical, and interval rating. As in the case of sign systems, discrete category systems refer to those observational schedules whose categorical boundaries do not approach the equal-appearing interval type of scale. Likewise, the categorical boundaries of the hierarchical type of category system tend to be discrete, but a clear representation of a hierarchy or taxonomy is present. The interval rating type of category system provides the observer with scales that tend to approach the equal-appearing interval type; there is a distinct continuum. In general, a category system differs from a sign system in that the category system is supposed to be exhaustive of behaviors of the type to be observed. Both the category and sign systems differ from field systems, primarily because the O is pre-set by the sign and category systems to look at very specific behaviors.

Sampling Unit Dimension

The sampling unit dimension is divided into three factors: time/events, events, and situational/events. The use of events in all three factors is to acknowledge that regardless of what sampling plan is employed by O the

Methods for Implementing Data Accretion Devices

Sampling Units / Data Systems	Time/Events	Events	Situational/Events
Field Systems	Commentary	Anecdotal Records (critical incidents) Diary Description (topical) Commentary	Specimen Description Diary Description (comprehensive) Field Unit Analysis Participant Observation Narrative Summaries
Sign/Discrete Systems	Time Sampling	Behavioral Checklists Anecdotal Records (formatted)	Behavioral Checklists Event Sampling
Sign/Hierarchical Systems	Time/Domain Sampling	Point-time Sampling	X
Category/Discrete Systems	Point-fixed time Sampling Time Sampling	Point-time Sampling	Event Sampling Point-time Sampling
Category/Hierarchical Systems	X	Point-time Sampling	Event/Domain Sampling Point-time Sampling
Category/Interval Rating Systems	Point-fixed time Sampling Intrasession Ratings	Point-time Sampling Intersession Ratings	Intersession Ratings Postsession Ratings (Trait ratings)

basic unit of analysis is a behavioral action--an event. When O samples behavior using the time/event factor, he typically employs a fixed time for obtaining an observation; only those behaviors occurring during a fixed time unit are treated as data. If the sampling unit is the events factor, O will describe, check, code, and/or rate only when a critical, topical or specified event occurs. Observations terminate for the target person or class, when the event occurs. The situational/events factor refers to a sampling plan during which time is the variable and the observation terminates only after some specified situation ends--the class, or snack period, for example. We may disregard here the fact that the time/events sampling units may be repeated during a defined situation. Event sampling, a procedure described by Wright (1960) as one which "singles out naturally segregated behavioral events of one or another class and records these events as they arise and unfold" (p. 75) is typically employed as a situational/events measure. Many of the other procedures found in the cells of the matrix of Table 2 are described by Wright (1960). Selected procedures not necessarily discussed by Wright will be examined here.

Wright (1960) defined trait ratings, as a process that "selects dimensions of behavior and bases judgments about them on observations during extended sequences of behavior" (p. 75). Postsession ratings would approach this definition. Other rating schemes termed intrasession ratings, are used during a session, sometimes in a time sampling format. Intersession ratings are used from one session to another until all items are observed and rated.

Goodlad, Klein and associates (1970) developed an anecdotal record type of procedure for which they supplied to O a list of topics they were to observe intentionally. Such a procedure tends to create a closed system and provides different types of data. The anecdotal record/critical incidents and formatted anecdotal record tend to point up these differences.

One final significant addition is the point-time sampling procedure. In this procedure the O examines the behavior of the traget person only long enough to be sure what the behavior is, and then checks off the behavior in the appropriate category. This procedure can be used in a time sampling plan as long as the fixed unit of time is ample enough for O to gather all the information needed. Such a procedure might be called a point-fixed time sampling procedure.

Section II. INSTRUMENT DESCRIPTION

A Description of Selected Examples of Observations in Selected Situations

1. Classroom Behavior Scale
2. Daily Ratings
3. Discrete Classroom Behavior Schedule
4. Evaluation Scale of Four- and Five-Year-Old Children
5. Intensity of Involvement Scale
6. Nursery School Behavior Record: Juice and Cracker Period
7. Observer Ratings of Children
8. Overview Snapshot Observational Technique
9. Reaction of Entry of Teachers
10. School and Classroom Observation Categories
11. Teachers' Attending Behaviors
12. Weekly Ratings

1. CLASSROOM BEHAVIOR SCALE

H. N. Sloane, Jr., J. L. Ralph, D. C. Cannon, and W. J. DeRisi

TYPE OF INSTRUMENT. This instrument uses both the category/discrete and category/interval rating system combined with a timed sampling plan. Here, then, is a combined use of time sampling and inter-session rating methods.

USAGE. The instrument was used in a correctional institution for boys. The boys were of junior high school age. The instrument was also used in an "adjustment" class consisting of students from the first four elementary grades.

VARIABLES MEASURED. The scale assesses desirable or undesirable student behaviors, the teacher's reactions to those behaviors, and the degree to which the teacher individualizes student contacts. Time spent on academic matters versus classroom management is also recorded.

INSTRUMENT DESCRIPTION. The scale was developed from a behavior analysis point-of-view. In each class five (5) children are selected for observation. A rating period lasts 30 seconds: the first 10 seconds are used for observing (the target child, teacher, class) and the remaining 20 seconds for scoring. Nine rating periods (or, 4 1/2 minutes) are used for each target child before the observer/rater turns his attention to another of the preselected children. The coding sheet contains a scoring matrix for each student. The horizontal dimensions contain 9 columns for the 30 second rating intervals. The vertical dimension displays 6 categories of student and teacher behavior or interactions: (1) student behavior, (2) non-verbal interaction with the target child, (3) verbal interaction with the target child, (4) non-verbal other, (5) verbal other, and (6) interaction character. The latter category is complex and contains codes to indicate the type of interaction in respect to group size and academic relationship. In all, 28 different scores or score qualifications can be coded.

SAMPLE ITEMS. Undesirable Behavior: To be coded "U", the S must be emitting the following behavior within the 10 second rating period: (a) verbalizing aloud in any manner when prohibited, (b) making nonverbal noise, (c) unacceptable location, (d) disruptive motor behavior, (e) slow or improper getting or returning of material, (f) failing to begin task upon teacher's signal, (g) not listening or looking at teacher presentation, (h) unauthorized seat leaving, (i) speaking to teacher without raising hand, etc.

PSYCHOMETRIC DESCRIPTION. Inter-judge Reliability. Three different studies employing the Classroom Behavior Scale were, in part, useful for supplying inter-judge reliability data. Data is presented in terms of percent agreement for each of the six categories separately.

Agreement for most categories is high. Validity. Studies showing change in certain categories for experimental groups were reported.

COMMENTS. None.

AVAILABILITY. Howard N. Sloane, Jr., The Bureau of Educational Research, 308 MBH, The University of Utah, Salt Lake City, Utah 84112

REFERENCES. Sloane, H. N., Jr., Ralph, John, Cannon, D. C., & DeRisi, W. J. The Classroom Behavior Scale, (Unpublished observational scale, 1969.)

2. DAILY RATINGS

National Institute of Mental Health

TYPE OF INSTRUMENT. This instrument is primarily of the category/interval rating variety and uses the situations/event sampling plan. Basically, the postsession rating method is used. One part of the instrument uses the category/discrete system with the event sampling method.

USAGE. Used with preschool children.

VARIABLES MEASURED. This instrument focuses upon the child and examines: (1) play involvement, (2) nomadic play, (3) peer involvement, (4) separation reaction (upon leaving home), (5) acts of aggressiveness, (6) peer conflicts, and (7) excited instances.

INSTRUMENT DESCRIPTION. Observations with this instrument may take place at the child's home, in a car going to the center, and indoors and outdoors at the center. The length of observation is variable and depends upon the length of a particular classroom period or the time it takes to drive from the child's home to the center. For three dimensions 0 is required to rate S's behavior on continuums. Some scales have 11 points, others 3. For the aggressiveness dimension, 0 is to indicate first, any instance of aggression, and second, the response (on a 4-point scale) of the other child to the aggression. In addition, the nursery school day was divided into 15 different time periods for this schedule and 0 was to check any period in which S showed excitement.

SAMPLE ITEMS. Peer involvement - Inside free play. (3) will frequently seek out the other children in the playroom in order to play with them, or talk to them, or boss them, or tease them, or take something from them; (2) some time was spent interacting with some of the other children; (1) very seldom, if ever, had anything to do with another child.

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. Some items on this schedule are not pertinent to other settings.

AVAILABILITY: Charles F. Halverson, Jr., National Institute of Mental Health, Bethesda, Maryland.

REFERENCES. National Institute of Mental Health. Daily Ratings. (Unpublished observational rating scale, undated (a).)

(This instrument is still in the developmental stages and is therefore subject to change.)

3. DISCRETE CLASSROOM BEHAVIORS SCHEDULE

Joseph A. Cobb

TYPE OF INSTRUMENT. The procedures used here combine the category/discrete system with the timed sampling plan. The commentary method is used to supplement the data.

USAGE. Not indicated but appears useful for observing the young child.

VARIABLES MEASURED. Basically, a behavioral modification approach. The observed behaviors deal with academically appropriate and inappropriate actions on the part of the child. The categories are: attending, appropriate talking with teacher, appropriate talk with peer, volunteers, imitation, complies, self-stimulation, physical negative, destructiveness, inappropriate locale, noisy, play, inappropriate talk with teacher, inappropriate talk with peer, and non-compliance.

INSTRUMENT DESCRIPTION. Every six seconds the observer codes a child's behavior by placing a circle around the appropriate category on the coding sheet. The occurrence of a response to the child's actions is also recorded. Once the behaviors of all children in the classroom are recorded, a new coding sheet is used for a new set of observations. Space on the coding sheet is provided to indicate the academic activity taking place during the coding session as well as for other types of context description.

SAMPLE ITEMS. "Appropriate talking with teacher. This category can be checked when the pupil talks with the teacher about academic material whether in private as in independent work situations, or answers questions in other situations" (p.2). "Noisy. This category is to be used when the person talks loudly, yells, bangs books, scrapes chairs, or makes any sounds that are likely to be actually or potentially disruptive to others" (p.3).

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. There is some indication by Cobb that Patterson, Ray, and Shaw (1968) previously defined many of the behaviors described in the manual. However, no bibliographic data was supplied.

AVAILABILITY. J. A. Cobb, Oregon Research Institute, Eugene, Oregon.

REFERENCES. Cobb, J. A. Definitions of Discrete Classroom Behaviors. Eugene, Oregon: Social Learning Project, Oregon Research Institute, January, 1970.

4. EVALUATION SCALE OF FOUR- AND FIVE-YEAR-OLD CHILDREN

A. L. Butler, M. Church, and M. Swayze.

TYPE OF INSTRUMENT. It appears that this instrument uses the category/interval rating system combined with the events sampling plan.

USAGE. Twenty-five teachers used the scale in their kindergarten classrooms.

VARIABLES MEASURED. Four basic areas are assessed with this instrument: self-concept, child in relation to other people, child in relation to his physical environment, and the child in relation to the world of ideas.

INSTRUMENT DESCRIPTION. No information was available as to how O was to proceed with the observations. There is some indication that the instrument may be used at the very beginning and near the end of the school term. Each of the four major categories contains at least six scales. The second and fourth position of the five scales are described and S's behavior (the child's) is rated on each of the dimensions.

SAMPLE ITEMS. Involvement in task (self-concept) (2) Flits from one activity to another. Samples but does not become deeply involved. (4) Plans and persists in activity for the sake of the activity.

PSYCHOMETRIC DESCRIPTION. None reported.

COMMENTS. The procedures used here approach those of retrospective trace reports.

AVAILABILITY. See below.

REFERENCES. Butler, A. L. An Evaluation Scale for Four and Five-Year-Old Children. Bulletin of the School of Education (Indiana University), 1965, 41, (Whole No. 2).

5. INTENSITY OF INVOLVEMENT SCALE

B. McCandless and W. L. Hodges

TYPE OF INSTRUMENT. The procedures used here employ the category/interval rating system with a timed-sampling plan. The method used is a fixed-time point-time sampling approach.

USAGE. This instrument has been used almost entirely with preschool aged children but the authors feel that it may be "equally adaptable for older children."

VARIABLES MEASURED. The scale is concerned with measuring "task-involvement," or the degree to which the child is attending to a designated task. Recorded also are indications of interfering behaviors: behaviors that distract others. Activities are also recorded.

INSTRUMENT DESCRIPTION. The observer is asked to make five rounds of the children present in the classroom. Each observation lasts five seconds and the O is asked to be in a position to observe S's face for all of that time. Immediately after the observation the O rates the child's involvement by use of one of six categories: (1) unoccupied, (2) onlooking, (3) minimal-minimal, (4) minimal, (5) attention moderate, (6) complete.

SAMPLE ITEMS. 4. Minimal (M): The S works in desultory fashion, but has attention flickering on task at hand. He is working, but O infers that attention on the task is partial at most. Some unoccupied and on-looking may occur. In stories, he occasionally glances at the story teller, but is not obviously attending to any other activity; he may perhaps be fingering objects or making asides to another child, but is at least partially "with it." Two-to-four seconds of the 5 second observation period are clearly task-involved.

PSYCHOMETRIC DESCRIPTION. Inter-judge agreement. Agreements up to 96% have been reported.

COMMENTS. None

AVAILABILITY. Boyd McCandless, Emory University, Atlanta, Georgia 30322

REFERENCES. McCandless, B. R. Intensity of Involvement Scale. (Unpublished observation scale, Emory University, 1968.)

6. NURSERY SCHOOL BEHAVIOR RECORD: JUICE AND CRACKER PERIOD

National Institute of Mental Health.

TYPE OF INSTRUMENT. This instrument uses two different procedures: (1) a sign system combined with a situational/events sampling plan--event sampling method; and, (2) a category/interval rating system interfaced with the situational/events sampling plan--postsession ratings.

USAGE. Used with preschool-aged children.

VARIABLES MEASURED. "Gulping," defined as the amount of food (or liquid) consumed over the number of times the food (or liquid) came to lips, is one dimension measured. Also examined is rate of talk and interest in a story.

INSTRUMENT DESCRIPTION. This schedule is designed for a combined snack and story period. The O counts the frequency by which food and/or drink is brought to the S's lips. After the child is finished he determines how much food and/or liquid was consumed. These two figures are employed to determine a gulping index. During this session O also tallies each statement or attempt at verbalization that is followed by a pause. The child's interest in a story is rated on a five-point scale.

SAMPLE ITEMS. Attention to story. (1) Almost completely disinterested in story; (2) slightly interested, or generally no interest, but with a short period of high interest;..., (5) almost undivided and rapt attention to story.

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. This schedule applicable only under conditions where a snack period and story period are combined.

AVAILABILITY. Charles F. Halverson, Jr. National Institute of Mental Health, Bethesda, Maryland.

REFERENCES. National Institute of Mental Health. Nursery School Behavior Record: Juice and Cracker Period. Bethesda, Maryland: National Institute of Mental Health, Child Research Branch, 1970 (a).

(This instrument is still in the developmental stages and is therefore subject to change.)

7. OBSERVER RATINGS OF CHILDREN

W. Emmerich & G. Wilder

TYPE OF INSTRUMENT. This instrument uses intersession ratings employing an events sampling plan first and then the postsession rating method.

USAGE. Black and white Head Start children, N>500, were observed during the Fall and Spring semesters. The data was examined both to validate the instrument and to make comparisons between subgroups and programs, over time.

VARIABLES MEASURED. W. Emmerich (1971) describes the instrument as a measure of "personal-social constructs."

INSTRUMENT DESCRIPTION. Two judges are required to make "simultaneous paired observations" and to record their perceptions first on a set of 127 unipolar scales and then on a set of 21 bipolar scales. The unipolar scales assess relatively specific categories of behavior including social motives, coping mechanisms, and activities of interest (e.g., gross motor behavior). The bipolar scales assess "broad personality dimensions." Each unipolar scale calls for an estimate of a behavior's frequency of occurrence during a specified period of observation, based upon the following four-point scale: (0) totally absent; (1) occurred once; (2) occurred more than once, but not continuously; (3) continuous during the observation period. The inferences called for when rating the bipolar scales are based upon the ratings the observers make on the set of unipolar scales.

SAMPLE ITEMS. (54): Engages in fantasy activity and, (73): Deliberately aggressive against property (unipolar scales). (1): withdrawn - involved and (16): Aimless - purposeful (bipolar scales).

PSYCHOMETRIC DESCRIPTION. Inter-judge Reliability: Pearson product - movement correlations were computed on all scales for rater pairs who observed at least 20 children simultaneously. For the 21 bipolar scales as a set, the median of the medians across pairs, sites, and periods was .63. For the 127 unipolar scales as a set, this overall median was .74. Emmerich (1971) notes that there was considerable difference from rater pair to rater pair and over sites.

COMMENTS. The use of ratings from the unipolar scales, as the basis for references (self-as-instrument) for the bipolar scales is an interesting procedure that should be investigated further.

AVAILABILITY. W. Emmerich, Educational Testing Service, Princeton, N.J.

REFERENCES. Emmerich, W. Structure and Development of Personal-Social Behaviors in Preschool Settings. ETS-Head Start Longitudinal Study, Princeton, N.J.: Educational Testing Service, 1971.

Emmerich, W., & Wilder, G. Classroom observation rating scale (Personality). In Educational Testing Service, Disadvantaged Children and Their First School Experiences: From Theory to Operations. Princeton, N.J.: Educational Testing Service, 1969. (OEO Grant H-8256.) (ERIC ED 043 397)

8. OVERVIEW SNAPSHOT OBSERVATIONAL TECHNIQUE (OSOT)

A. R. Coller

TYPE OF INSTRUMENT. This instrument, used to gather data for additional encoding at a later date employs the sign system, the category/discrete system and the category/interval rating systems with a point-time sampling method. A diagrammatic accretion device is employed to gather the data.

USAGE. The OSOT has been used to describe pictorially "a-day-in-the-life" of a multiaged-group kindergarten class and a "traditional" kindergarten class.

VARIABLES MEASURED. Besides providing a graphic display of transactions within a classroom context, five dimensions are evaluated by OSOT. These dimensions include: (1) the S's location in the classroom, (2) S's interactions with others, (3) S's encounters with instructional material, (4) S's attention to others and/or his involvement with instructional materials, and (5) the strenuousness or intensity of his motor activity. Sociometric type choice and various other types of social interactions can also be coded from the basic data.

INSTRUMENT DESCRIPTION. OSOT procedures are not fixed and are intended to be adopted for the particular local purpose. Typically, the OSOT procedure is to focus upon the first child on a list, observe for about 10 seconds (or as long as necessary to gather the pertinent data), record the data for about 10 seconds, and then focus upon the second child listed. However, if any of these children are interacting or close to others in the class, the observer reverts to "cluster" observations and records data for all those in the cluster. When this is done, the O focuses on the next child on the list whose behavior has not been recorded and the process continues. The O records notational symbols upon a diagram representing the classroom with furniture and other important aspects of the classroom displayed and labeled. The O locates the notational symbol on the diagram representing the actual location of the child; other notations are used to represent social interactions, sex, attention to others, involvement with materials, and level of motor activity. Initials and abbreviations are used to identify S's and type of instructional materials.

SAMPLE ITEMS. Motor Activity Level. (0) No overt movement; (1) moderate movement, no locomotion; (2) moderate movement, locomotion; (3) intensive movement, no locomotion; and (4) intensive movement, locomotion.

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. Initial tryouts with the OSOT indicated that some revision was necessary. A revised version of OSOT will become available in the near future.

AVAILABILITY. Alan R. Coller, Institute for Development of Human Resources, 520 Weil Hall, University of Florida, Gainesville, Florida 32601

REFERENCES. Coller, A. R. Overhead Snapshot Observation Technique (OSOT): Administration Manual, Urbana, Illinois: Center for Instructional Research and Curriculum Evaluation (CIRCE), University of Illinois, 1970.

9. REACTION TO ENTRY OF TEACHERS

National Institute of Mental Health

TYPE OF INSTRUMENT. This instrument employs the postsession rating method.

USAGE. Used with preschool children.

VARIABLES MEASURED. Two scales measure the child's reactions as the teacher (1) entered the doorway (initial encounter), and (2) attempted to move close to the child.

INSTRUMENT DESCRIPTION. The two seven-point scales (with each point defined) are rated by O after observing the child's behavior after the teacher either enters the room or attempts to come close to the child.

SAMPLE ITEMS. Initial encounter. (1) child makes no negative responses and makes more than one positive response; (2) child makes no negative responses and makes one positive response; ... (5) child's reaction is slightly negative; ... (7) child gives no positive responses and he freezes or runs to mother.

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. When teacher behaviors are "staged", this observational procedure approaches that of observations in contrived situations. This instrument is still in the developmental stages and is therefore subject to change.
AVAILABILITY. Charles F. Halverson, Jr. National Institute of Mental Health, Bethesda, Maryland

REFERENCES. National Institute of Mental Health. Reaction to Entry of Teachers. (Unpublished observational rating scale, undated (c).)

10. SCHOOL AND CLASSROOM OBSERVATION CATEGORIES

J. I. Goodlad, M. F. Klein, and Associates

TYPE OF INSTRUMENT. This instrument employs a sign system with an events sampling plan. The method is best described as a formatted anecdotal record.

USAGE. Used to assess about 158 classrooms in 67 schools, grades K-3.

VARIABLES MEASURED. Basically, a data collection procedure which employs anecdotal records to collect behavior. This instrument provided O with categories for observation. For example, milieu, instructional activities, subject matter, materials and equipment, involvement, interaction, inquiry, independence, curriculum balance, curricular adaptation, etc.

INSTRUMENT DESCRIPTION. The technique of anecdotal records was used here with the categories for observation spelled out in advance for O.

SAMPLE ITEM. Curriculum Balance. The interest in this category is the range of organized human experience with which the class seems to deal. Are subjects and activities concentrated in a few fields or spread across the major divisions of knowledge? Are emphases identifiable?

PSYCHOMETRIC DESCRIPTION. None reported.

COMMENTS. None.

AVAILABILITY. See below.

REFERENCES. Goodlad, J. I., Klein, M. F., & Associates. Behind the Classroom Door. Worthington, Ohio: Charles A. Jones Publishing Company, 1970.

11. TEACHERS' ATTENDING BEHAVIORS

M. Cooper and C. Thomson

TYPE OF INSTRUMENT. Two different schedules are combined here. Both use a sign system interfaced with a situational/events sampling plan: the event sampling method.

USAGE. Used to assess the attending behaviors of preschool teachers undergoing different treatments in an attempt to modify attending behaviors.

VARIABLES MEASURED. Teacher behavior in terms of their attention and/or inattention to child responses, either appropriate or disruptive.

INSTRUMENT DESCRIPTION. It appears as if two observers are necessary. One observer determines if the teacher was attending to appropriate child responses or to disruptive child responses. A second observer who, as the first observer, records behavior in 10 second intervals, determines occurrences of the teacher's (1) attending to appropriate child responses, (2) lack of attention to child responses which could have been attended to.

SAMPLE ITEMS. Attention to disruptive responses was defined as giving attention to a child when he (1) physically disturbs another, (2) verbally disturbs another, (3) abuses materials, and (4) does not follow directions.

PSYCHOMETRIC DESCRIPTION. Inter-judge agreement. Agreements in a study employing the instrument were as low as 73% and as high as 95%. Validity. The instrument apparently is sensitive to treatment effects designed to change the teacher's rate of attending to appropriate and disruptive child responses.

COMMENTS. Another behavioral modification approach.

AVAILABILITY. The University of Kansas Head Start Evaluation and Research Center, University of Kansas, Lawrence, Kansas.

REFERENCES. Cooper, M. & Thomson, C. The Observation of Reinforcement Behavior of Teachers in Head Start Classrooms and the Modification of a Teacher's Attending Behavior. Lawrence, Kansas: The University of Kansas Head Start Evaluation and Research Center, 1967.

12. WEEKLY RATINGS

National Institute of Mental Health

TYPE OF INSTRUMENT. This instrument employs the postsession rating method.

USAGE. Used with preschool children.

VARIABLES MEASURED. This instrument focuses upon the behavior of the child and contains scales for the following dimensions: (1) chronic fear; (2) fear when using equipment, (3) frenetic - impulsive, (4) impatience, (5) positive peer interaction, (6) negative peer interaction, (7) originality, (8) nurturance, female teacher, (9) nurturance, male teacher, (10) indication of intervention, (11) interest in obtaining help, and (12) seeking help.

INSTRUMENT DESCRIPTION. The O is asked to rate each target child on the twelve dimensions listed above. An eleven-point continuum is employed with the eleventh, sixth, and first points being defined.

SAMPLE ITEMS. (2) Fear when using equipment. Child's general orientation toward approaching physical activity or playground equipment: (11) Confident, daring, bold, adventurous (e.g., likes to swing, climb high, jump from the tree stump); (6) neither characteristically bold or cautious; (1) timid, over-cautious, needing adult help. Avoids activities, shows fear of heights or loss of balance.

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. Some items on this scale are not generalizable to other settings.

AVAILABILITY. Charles F. Halverson, Jr., National Institute of Mental Health, Bethesda, Maryland.

REFERENCES. National Institute of Mental Health. Weekly Ratings. (Unpublished observational rating scale, undated (b).)

(This instrument is still in the developmental stages and is therefore subject to change.)

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NOTE

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Postscript

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